

Mimulus patulus Penn.

stalk-leaved monkeyflower

Status: State Threatened

Rank: G3QS1

General Description: Adapted from Meinke (1989): *Mimulus patulus* is a conspicuously hairy, glandular annual. The hairs on the stems are glandular. The stem leaves are heart-shaped to broadly lance-oval shaped, and strongly toothed with very small teeth. The leaf blades narrow abruptly to the petioles, which usually equal or exceed the length of the blades. The flowers are less than $\frac{1}{2}$ in. (15 mm) long, the corolla is yellow (often with some reddish spots), weakly bilaterally symmetrical to regular, and never bilabiate. The margins of the petals are entire. The palate ridges are absent or inconspicuous. All of the calyx lobes are equal, with needle-shaped, glandular cilia on the margins. When in fruit, the flower stalks are erect and straight.

Identification Tips: *Mimulus patulus* may be mistaken for the rare *M. washingtonensis* and annual forms of the widespread and common *M. guttatus*. *M. patulus* has heart-shaped to broadly lance-oval shaped leaf blades, the margins of which are strongly toothed with small teeth, whereas *M. guttatus* has heart shaped, round or kidney-shaped leaf blades, with irregularly toothed margins, and *M. washingtonensis* has heart shaped (or nearly so) leaves that are slightly toothed. The corolla of *M. patulus* is never bilabiate, and the palate ridges are absent or inconspicuous, while the corollas of both *M. guttatus* and *M. washingtonensis* are strongly bilabiate, and their palate ridges are very conspicuous. Furthermore, the upper calyx tooth of *M. guttatus* is always much longer than the lower teeth, unlike the calyx teeth of either *M. washingtonensis* or *M. patulus*.

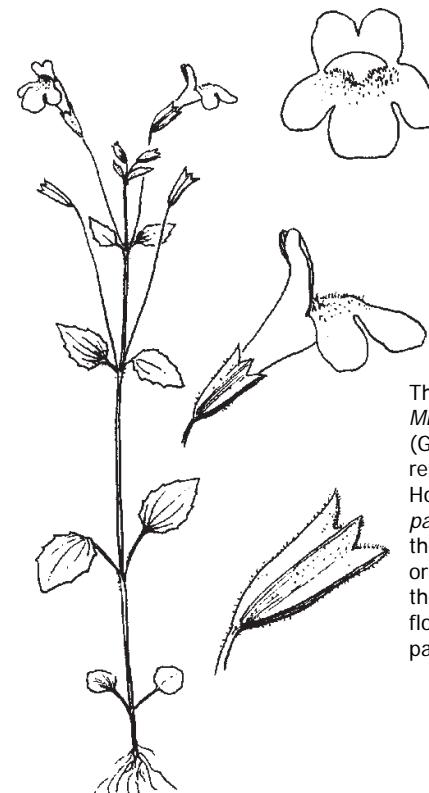
Phenology: In Washington *Mimulus patulus* is likely to be in flower from April through May.

Range: This species is known from Oregon, where it is also rare, and in Asotin and Okanogan counties, Washington.

Habitat: In Washington the species was found on ephemeral seeps, moist basalt, and very fine gravel on top of bedrock in a small drainage from 1000 to 2000 feet (300-600 m) elevation. Associated species include: common monkeyflower (*Mimulus guttatus*), cheatgrass (*Bromus tectorum*), Oregon twinpod (*Physaria oregana*), stoneseed (*Lithospermum* sp.) and spring draba (*Draba verna*).

Mimulus patulus

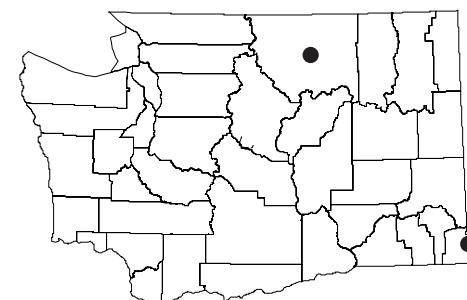
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This is an illustration of *Mimulus washingtonensis* (Gandog.) which closely resembles *M. patulus*. However the corolla of *M. patulus* is never bilabiate, and the palate ridges are absent or inconspicuous, rather than the conspicuously bilabiate flowers with very conspicuous palate ridges shown here.

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Illustration by Jeanne R. Janish

Known distribution
of *Mimulus patulus*
in Washington



● Current (1980+)
○ Historic (older than 1980)

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Theresa Ohlson



Mimulus patulus

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Ecology: *Mimulus patulus* is endemic to basaltic seeps in northeast Oregon, and on ephemeral seeps in eastern Washington, in relatively undisturbed, winter-wet, summer-dry, canyon grasslands.

State Status Comments: In Washington this species is known from 3 historic populations and less than 5 confirmed recent populations. The limited range and low number of occurrences contribute to the state and global status of *Mimulus patulus*.

Inventory Needs: The historic occurrences should be revisited for updated population information. More information is needed to determine threats to this species.

Threats and Management Concerns: Threats and management concerns have not been listed for this species.

Comments: Hitchcock et al. (1959) included this species in *Mimulus washingtonensis* Gandy. *M. patulus* is a highly autogamous (self fertilizing) relative of *M. washingtonensis* that was not recognized in 1959, although its validity as a taxonomic unit is supported through work by recent OSU graduate students (BLM 2003). There is a description of *M. patulus* in Peck (1961).

References:

Bureau of Land Management. 2003. *Mimulus patulus*, a rare species in Washington and Oregon now found in Okanogan County. Unpublished. On file with WNHP.

Hitchcock, C.L., A. Cronquist, M. Ownbey, J.W. Thompson. 1959. *Vascular Plants of the Pacific Northwest Part 4: Ericaceae Through Campanulaceae*. University of Washington Press, Seattle, WA. 510 pp.

Meinke, R. (1989). Key to *Mimulus* (section *Paradanthus*) in the Pacific Northwest. Unpublished. On file with WNHP.

Peck, Morton Eaton. 1961. *A Manual of the Higher Plants of Oregon, Second Edition*. Oregon State University Press, Portland, OR. 936 pp.